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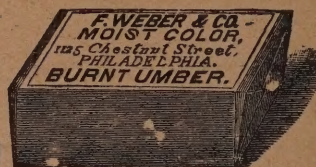
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CORN
WELL

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AMERICA**

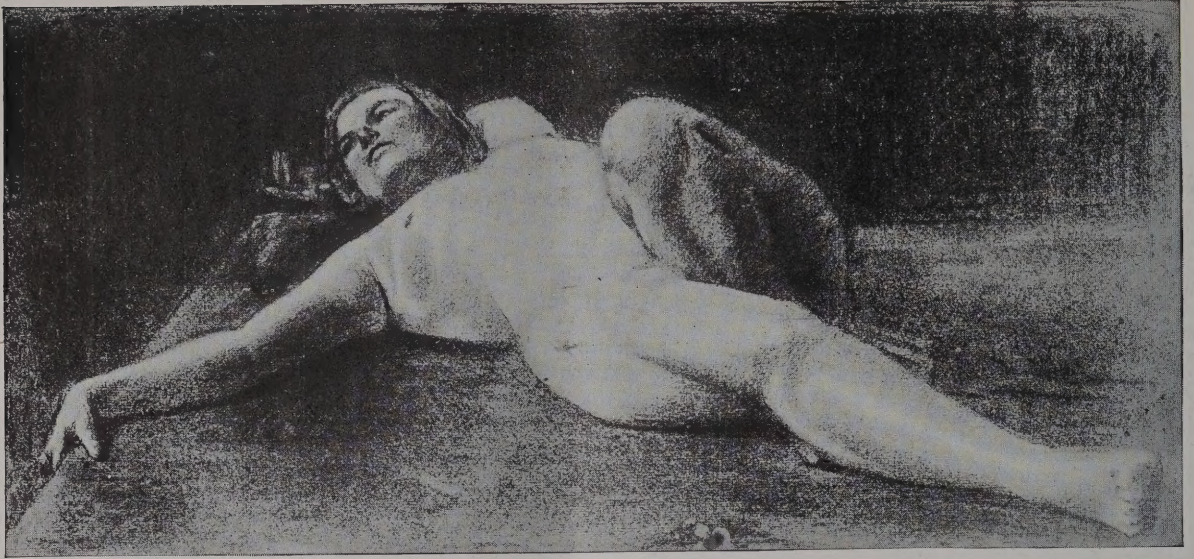


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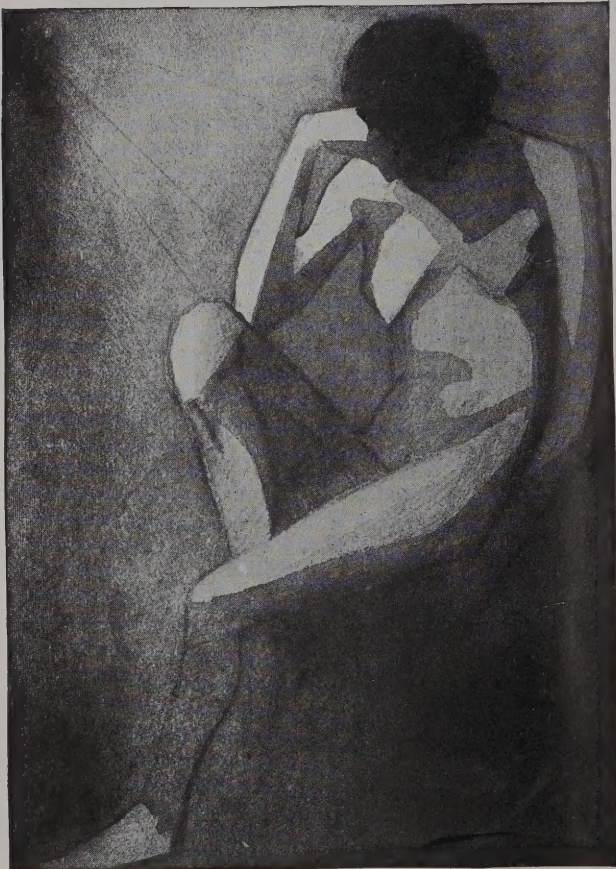
COLORS OF MANY QUALITIES

A SCIENTIFIC PREPARATION—THE SUPREME MEDIUM FOR VIVID CONTRASTS DEMANDED IN POSTER WORK; THE SUBTLE HARMONIES OF WATER COLOR; AND THE STRENGTH OF TECHNIQUE IN REPRESENTATIVE OIL PAINTING—MAY BE USED ON PAPER, CANVAS OR ANY SURFACE—WATER IS THE MEDIUM—WRITE FOR CATALOGUE

57 MURRAY STREET, NEW YORK, N. Y.



ARRANGEMENT IN DYNAMIC SYMMETRY



ACTION SUGGESTED BY DYNAMIC SUB-DIVISIONS

THE AMERICAN ART STUDENT

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BERNARD KRAMER, *Managing Editor and Treasurer*

EDWARD C. BRIDGMAN, *Associate Editor*

CAROLYN J. TOWNSEND, *Art Editor*

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DYNAMIC SYMMETRY AND LIFE CLASS WORK

By JAY HAMBIDGE

Under the guidance of Mr. Howard Giles, the American painter, dynamic symmetry was tried out in the life and illustration classes of the New York School of Fine and Applied Art during its past term. Mr. Giles was a member of the group of painters, designers, sculptors and architects who listened to a lengthy course of lectures on this symmetry in New York two years ago.

Taking a large class of students, the majority of whom were unfamiliar with drawing from the figure, Mr. Giles organized and started them to work on entirely new and unacademic lines. The results of this experiment with unskilled figure draughtsmen are somewhat startling as the layout plans accompanying this article testify.

We are all familiar with the usual academic method of teaching drawing from the human figure. The model and the throne, the conventional posing and meaningless actions, the smooth surfaces produced by crayon sauce and stomp, the uniform charcoal paper size, the



A SUGGESTIVE BEGINNING

lack of construction and photographic rendering of surfaces; all characteristic conventions of modern school figure study which produce the rubber stamp quality which has come to be accepted as the hall-mark of classroom work. Mr. Giles has banished all this and has begun the blazing of a new trail directed toward the goal of real artistic achievement.

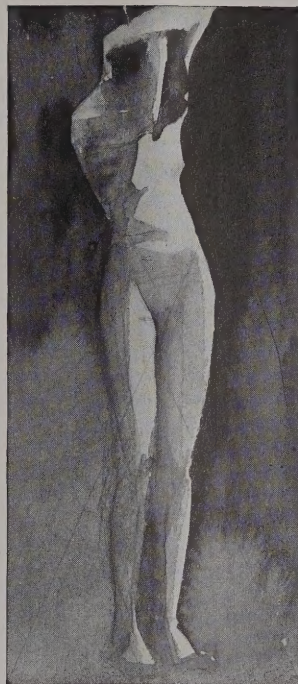
Mr. Giles began by first explaining to his class something of the nature of the pattern of the human figure itself and then, by a simple practical illustration, made clear the fact that slavish copying of the superficial aspects of the model would utterly defeat any attempt to put force and power into composition. The members of the class were first asked to make a drawing of a figure in action—actually a man striking a blow. This was done without the use of the model. Then a similar drawing was made by using the model. The two best drawings, one by each method, were then selected and pinned up. The members of the class were told to imagine that they had to submit to being struck by one of the two figures but that they were privileged to select the one supposed to do the striking. The class was unanimous in selecting the figure which was drawn from the model. The figure drawn from imagination seemed too competent. This object lesson made it clear to each student that the imaginative element in a picture was most important. After this the class was shown how to make three simple rectangles by construction,—the arithmetical part being neglected. These rectangles were used as bases for plan arrangements for compositions. The students were now ready for an inspection of the model, but instead of beginning their work in the old manner by plumb line, sight measurement and feeling their way gingerly with the charcoal point on the white paper, each set about making a plan on a small scale, using for this purpose one of the simple constructions already learned. While this plan-making process was going on the model was neglected. These plans were made on a scale of about nine inches for the length and the medium used was, generally, a lampblack wash, though some of the students preferred water-color. After the students had completed their plans they made more careful drawings on a larger scale, usually regular charcoal paper size.

The interesting point is that no attempt was made to use the model until the student had a definite idea of the compositional arrangement he wished to make. The preliminary plan furnished

a clear and actual picture of the result he was striving for. Mr. Giles says the students were fascinated with the process, absorbed with their work and that the results were the opposite of mechanical. The plans themselves make this clear. The process seemed to encourage individuality. Whether using color or black and white the students appeared to be quite unconscious of the technical difficulties attending the employment of these mediums; they had clear conceptions of what they wanted and adopted naturally the simplest means to attain their purposes.

The symmetry of the human figure is dynamic, therefore the selecting of a dynamic rectangle for the purpose of correlating the units of a figure composition is most appropriate. It will be noticed that the actions in these sketches are most natural and logical. These are determined by the diagonals and proportional subdivisions of the rectangles themselves. These offer an infinite variety of movement suggestions which transcend invention. Dynamic symmetry also is an ideal enlarging and reducing scheme, being much superior to the old system of squaring. When a student has finished his preliminary sketch he may enlarge or reduce it to any proportion with the utmost ease. Mr. Giles says that practically no time is lost in this process.

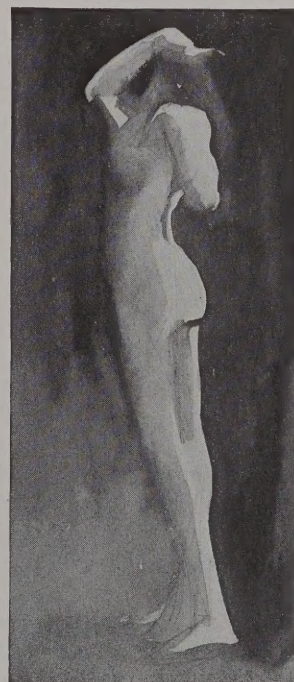
One very interesting feature of these plan-sketches is that they do not look like the work of beginners. They have a professional, a painter-like quality which is found only in the work of like character done by artists after they have had a long studentship training. The reason for this lies in the fact that most of the difficulties which beset the beginner, and which are usually overcome only by long practice, are, by dynamic symmetry or the dynamic method of approach, solved more or less automatically. The obtaining of correct proportions in figure construction is probably the most embarrassing element which confronts the novice but by using proper rectangles and understanding something of their modulating subdivisions much of this difficulty is solved at once and the student is able to advance his work on any scale with assurance. Feeling the reliability of this sure foundation instead of becoming more and more confused as he proceeds the student gains more and more confidence and self-possession. This not only enables him to express himself freely but in a large measure develops his individuality. The sketches themselves furnish the

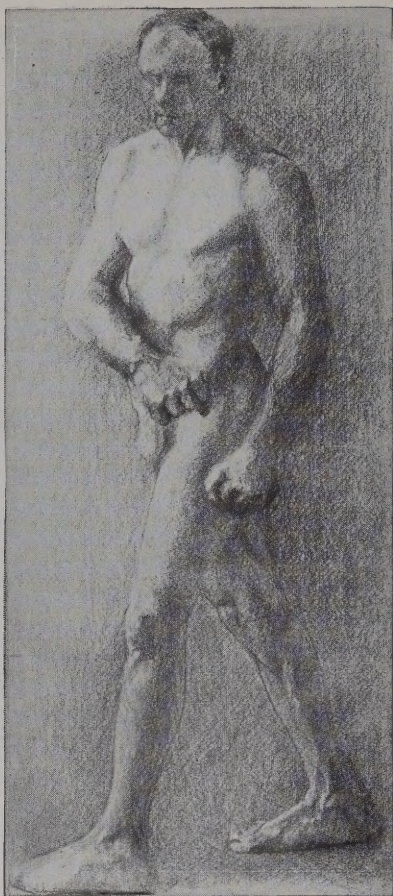


SKETCHES USING
PRINCIPLES OF
DYNAMIC SYMMETRY,
SHOWING DIFFERENT
STUDENT CONCEPTIONS.



THESE SKETCHES
WERE MADE BY
BEGINNING
STUDENTS





Virile Study by a 4 Months' Student

best evidence as to this. No two of them are alike; the individual equation in each is unmistakable. Moreover the confidence and feeling of power which the method engenders seems to assist materially in giving the student color control. Experienced artists know how difficult it is to express the nude human figure in water-color terms. Success in this not only demands great technical skill in the use of the medium but profound knowledge of color. Yet these beginners, apparently oblivious of these difficulties, use water-color with freedom, ease and success.

An interesting aspect of this experiment is that the students have been aroused mentally and have begun to think of many other things besides the technique of art expression. Dynamic symmetry compels thought. The art student or indeed the artist himself, as a rule, is not given to ponder much over matters which are not connected directly with his work. But the mere act of making the simple constructions necessary to start a composition in a dynamic

Page Eight

way forces a certain degree of mental application. No one can go far in following out the ramifications of modulating dynamic form without being struck with the logic of the process. Like a brilliant demonstration in science the interweaving of the vital shapes of this symmetry disclose invariably a play of reason and inevitableness captivating in the extreme. Lincoln studied Euclid that he might apply reason to his law practice. Dynamic symmetry discloses veins of rationality of the purest character which are applicable in some degree to most human effort. Familiarity has had its effect. The students who have taken this step in a new and what seems a saner and healthier direction than that usually followed, have already given evidence of an awakened interest in phases of culture seemingly not connected with art training. Perhaps through art training we may revitalize, humanize, classic study. Perhaps this is the beginning of a new type of education which will seek to cultivate the mind by the study of beauty. At any rate when this school term closed these students, themselves taking the initiative, asked to have a course of lectures on logic.



In response to our note in the June issue inviting students to send sketches of their instructors, we have received the above caricature from J. Abril, a young Spanish student at the Associated Art Studios. The sketch is a very clever likeness of Mr. Mort M. Burger, director of the school.

WHEN POSTER IDEALS BECOME MAGAZINE ADVERTISING

By CHARLES H. GILBERT, Courtesy of *Poster Magazine*

Commercial art has gone through many complex periods of physical change during the last twenty-five years. As we look back through dusty files we discover that there first came an era of pictorial atrophy when the package, the merchandise, was the thing, coldly superimposed against dismal backgrounds of a more or less irrelevant character.

Then the figure artist was permitted to have his fling, but as men of real talent would not allow themselves to be "contaminated by the commercial," the illustrations were listless, stiff, uninspired.

And now came more pretentious compositions, with stories told in picture form, but still a bit clumsy.

As processes of engraving improved, more and better art talent was encouraged to undertake advertising commissions and displays were placed on a true artistic basis.

For about five years another element was in evidence, and it is the writer's humble opinion that it did more subtle harm to the profession, and to advertising in general, than any one misguided development. As nationally known illustrators, accustomed to book and magazine work, came into the fold, there were seen complicated figure ideas, panoramas of design—compositions that often meant as many as a dozen figures in a single page, with an amazing amount of background detail.

The art of the poster, during this period, followed some of the errors of magazines and newspaper commercial designing. Poster pictures were inclined to too much detail and to verbosity of text.

But a sudden transformation took place.

The poster artist realized that he was on the wrong track, and that simplicity was one of his most powerful single assets.

The very spirit of the generation called for it.

People wanted simple, direct, even swift messages. The long drawn out advertisement or poster was as unpopular as the similarly created story.

And this idea is illustrated rather aptly by the remark of a veteran publisher of books, who said:

"I can remember when the reading public

craved the Dickens type of narrational story, with a vast fund of description and of minute, microscopic character analysis. Today a great change is noted. People want short, crisp, snappy paragraphs. They prefer conversational text, rather than long pages of solid type. Brevity of expression is very much desired. Get your story over quickly."

In its kindred tendency, where advertising is concerned, people are equally exacting. There is far too much advertising for any one campaign to attempt to monopolize long stretches of a reader's time and attention.

A copy writer of long experience says: "If you want to be sure your advertising is read, make it brief."

A commercial artist says: "If your advertising story can be told with one figure, instead of a half dozen, by all means do so. Borrow a leaf from the poster man, who boils down facts and skims off the top. And if a large head tells that story, eliminating the remainder of the body, so much the better."

"Borrow a leaf from the poster man!"

Right here is an important, a significant text.

It has news value, as showing still another step forward in advertising art, and of slow, sure processes that have made America lead

in the field.

More and still more national advertisers are using the poster forms of display in their magazine campaigns.

It is as pretty a tribute to poster art as could be imagined.

It certainly suggests that posters are coming in for far more consideration and conscientious study than in days gone by.

When the national campaign, comprising various mediums, is influenced by the poster campaign we have a right to expect strategic developments.

Some advertisers have always contended, "You can pack as much into magazine space as you want—they'll read it." But this is not always borne out by fact.

It merely gets down to a rather simple equation:

"There are two methods of telling an advertising story—the long-winded, indirect way, and the direct, brief way. A great deal can be told



in a few words—if you know how. A great deal can be told in a simple illustration—if you know how.”

The poster leans to the latter method.

Not because it is necessary for posters to cut to the bone, but because that is the safe and sane method. Not all posters must be read as people run. They are not, as popularly believed, “the motorist’s newspaper”. It is when we study the poster of the outlying districts, the small towns and the city streets, that we appreciate the poster can use any material it likes and can be absolutely sure of an audience.

The public speaker who makes it “short and snappy” holds his audience — wins larger audiences.

But, combined with marvelous brevity, the modern poster has taken on the very highest ideals of the studio.

We are seeing today, in our poster displays, such art as could never have been a few short years ago.

It is created by specialists.

It bears, on its roster of illustrious names, artists of international renown.

The beautiful has been fused with the brief.

And other forms of advertising have not always managed to accomplish this delicate adjustment of two units.

It came about through an accident—the use of a poster design for part of a national magazine advertising campaign.

About two years ago an illustration and its copy, scheduled for two colors in a women’s magazine, was “turned down cold” by the factory officials and at the last minute.

There was no time to have another picture drawn. The advertising manager had a mental flash. Why not make a two-color half-tone from the last one sheet poster issued by the company? It had been popular. Everybody liked it; it was excellent advertising, too, despite the fact that there were only



nine words of text and a single unit to the illustrative scheme.

The suggestion was approved by the committee.

And the poster was run without change, save in the matter of size, in two strong poster colors.

When it appeared it was assuredly the most striking advertisement in the magazine.

The directors were enthusiastic and the public seemed to be equally so.

It was found that retail merchants tore the page from magazines and used it as a window

sticker.

Salesmen on the road wrote in: “Do more of that sort of thing, it’s great!”

And the sales manager, for the first time in memory, had a kind word for the advertising department.

It proved a turning point in the firm’s advertising policy.

From that day on only simple “postery” advertisements were employed, and as a rule these were taken from the posters issued.

Other national advertisers have followed suit.

They have been impressed by the striking character of the display—the directness of a method that puts over one idea, and one only, at a time.

Will the day come when, in many instances, poster art will come first, laying the floor plan for the magazine campaign? It is entirely possible.

But suppose we glance through our current magazines and examine some striking instances of this important recognition of the poster artist’s ability to hold attention, to concentrate it to sell goods on paper.

A notable example, of course, is the campaign of long duration, in colors, for Snowdrift, a vegetable shortening. A reproduction of the can, in flat tints, mass background effects, a very few words of text, and all done in the true poster spirit, this series has been strikingly and





THE POSTER IDEA IN MAGAZINE ADVERTISING

characteristically efficient.

Even reduced to terms of black and white, the designs are stronger by far than the complex figure ideas used by other advertisers. They are, in every sense of the word, reduced fac-similes of posters—posters in miniature.

Recent Bon Ami advertising, also in full color, is virtually of the poster class. One single figure, boldly suggested, with minimum background accessory detail, places the series in this class.

The advertising in color of Morris & Company, made up of very large dishes of foods, against plain white backgrounds, is poster-like and consequently very striking. The same designs that appear on the poster boards are used for magazine purposes. Karo advertising is poster advertising in nearly all of its composition essentials.

Have you followed the unique and dramatic series in color for the National Canners' Association? Here are beautiful and simple pictures that tell their story, almost with no text whatsoever. They would make excellent poster material—and, by the way, *should* be used for this purpose.

Old Dutch Cleanser displays, for at least three years, in their marked simplicity of style and of treatment, are born of poster art, of poster directness. Only one objective is aimed at, one big cleaning idea. There can be no confusion in the minds of the people who skim through magazines.

The tobacco accounts have not failed to grasp the possibilities of the poster, transformed bodily and without change into national magazine advertising purposes—and even as newspaper copy.

Campaigns for such popular brands as “Chesterfield”, in a series of striking character heads, reproduce the posters used line for line, including limited text.

A poster was created for Exide Batteries—a 24-sheet, showing a gigantic battery surrounded by tiny motor cars. It made an immediate hit with dealers and the trade and was lifted bodily and used as a double spread in monthlies and weekly magazines.

White and Stutz motor car magazine advertising has been finally reduced to terms of simple poster display—a car, simply treated, against black or dark gray backgrounds, and a line or so of descriptive matter. The very character of the art work is born of posterdom.

The latest national campaign for Campfire Marshmallows, in color, is poster advertising and can be construed as nothing else.

Watch the two color page designs in magazines for Comet Rice! They are all posters! Van Raalte advertising, for several products, has at last been simplified to the point where it has poster virtue in every line.

Who has not seen and studied the poster value of the long-continued Hartford Fire Insurance Company campaign in standard publications and, as a rule, in two colors, poster red and

black, harmoniously combined? If there ever was poster art, this is it.

It is pleasing to see how after various vicissitudes of complex designing, often involved, the Champion Spark Plug has settled upon an immense showing of the plug, in poster treatment, against an equally postery background effect. Arrow Collar advertising, in its simplicity, is poster display. So is Gold Medal Flour compo-

sition and art. So is Hoosier cabinet work. The large clothing manufacturers make one set of illustrations—for posters, first, and then the same thing reproduced in magazines, or vice versa. The remarkable color page for Mavis and Vivaudou represent a very high type of modern poster illustration.

It is the modern advertising idea—watch it grow!



POTTERY MADE BY STUDENTS OF THE PENNSYLVANIA MUSEUM
AND SCHOOL OF INDUSTRIAL ART

KERAMIC DEPARTMENT

Edited by FRANZ NEUSCHAFER

(This department has been created for amateur china painters because of the renewed interest that is being shown in Keramics. Readers are invited to send inquiries to the Ceramic Editor, and the answers will be published here.)

It is pleasing to note the readiness with which our readers write us in taking advantage of the assistance offered through these columns. The many letters are very gratifying and give evidence of the value attached to this medium of information.

China painting requires a study of not only painting but a knowledge of the materials used and processes involved. In a particular style of work the peculiar qualities of the materials must be always taken into consideration. China of different grades requires various degrees of heat in firing and there is possibility of conflict in firing colors of different basic minerals, which illustrates but two of the many points on which information is necessary aside from the painting or the application of the color itself.

Often great disappointment results from spoiling a beautiful work in firing through accident which might have been guarded against were the artist a little more familiar with the various points involved. The painting itself is only a part of the entire work which is not complete until after firing. It is quite surprising to find that often fault is due to some outside agency to which thought would hardly be given. This may occur through use of materials not entering into the finished work which are likely to alter the working qualities of the other materials employed if not at the time of painting perhaps during the process of firing. Atmospheric conditions both at time of painting or inside of kiln during firing also are likely to leave their effects.

As even the most experienced artist and the most learned teacher could hardly be expected to bear in mind at all times the countless number of possibilities, unfortunate difficulties will arise and errors be made. Problems once solved, similar mistakes will be very easily avoided. In china painting it is quite remarkable that the unexpected happens. Colors in firing, especially lustres, will often show a much different result

Continued on page 22

MATERIALS THE ARTIST USES

By HERBERT E. MARTINI

The processes of painting so far have dealt with their application on panels only. Mention, however, was made that the alkaline nature of the clay used in the erection of Egyptian tombs acted more or less like a cement and this action bound the colors applied to it. It is obvious that the methods described are media which do not permit the decoration of monumental mural surfaces.

The finding of wax in the analysis of some wall paintings led several to project the theory that the encaustic method was used; but a consideration of the difficulties proved its use impractical. To account for the wax in the analysis it was assumed that the paintings received a protective coating much in the same manner as was described for statues referred to in my last paper as "ganosis".

To consider, then, a method for mural decoration leads us to a description of the fresco technique. This is divided into two distinct processes—fresco secco and buon fresco.

The former is valued less by the artists as it cannot compare in effect and execution with the latter. Secco is Italian, meaning "dry". In other words the wall on which the work is done has set and hardened. The colors are mixed with a suitable binder generally size or egg and applied to the dry wall surface.

The buon fresco meaning true fresco is an entirely different process. It is the technique supreme of the fifteenth and sixteenth century Italian painters. I believe if some of our young art students study carefully this method, they will see how gigantic a task Michael Angelo and others accomplished in their colossal mural decorations. They will see another reason for appreciation of these masterpieces aside from composition, drawing and color.

The work of some of our modern artists in wall decoration is mere child's play technically. They work on canvas with colors which can stand for weeks at a time and work at their leisure. With a buon fresco painting it is necessary to go ahead with it and keep at it while the ground is in workable condition. The study of the work of the masters leads me to believe that their work *was work* and they had little time to await the inspiration of the Muses. Edison said that genius is ninety per cent. perspiration and ten per cent. inspiration. Another Ameri-

can, an artist whose work is so sound in all its parts, James McNeill Whistler, said that industry is a necessity not a virtue for the artist; two good maxims for the art student to incorporate in his daily activity.

One of the MSS. describing the fresco method besides references we find in Pliny is the Mount Athos handbook or *Hermeneia*. This was discovered in an old monastery on Mount Athos and belongs to about the eleventh century. The isolation and seclusion of all monasteries and especially this one, permits us to assume that processes were carried on much in their original manner. A later work of reference would be the *Trattato* of Cennino Cennini, an artist's book for apprentices in art compiled early in the fifteenth century. This latter book is a most important work and will be considered in greater detail in an early article.

The basis of the fresco secco is the setting of the lime. When calcium is burned in kilns it is converted into calcium oxide. When water is mixed with it it is converted into the hydroxide. This then mixed with sand and spread out on a wall takes up carbon dioxide from the air and forms the carbonate of calcium or lime on its surface which binds the color particles painted on its surface. To aid the carbonating process charcoal or coke braziers are lighted in the room in which the painting is, but only after it is completely finished. The setting process in dry weather takes two or three days but in rainy weather two to three weeks. So much for the chemical explanation of the method; now let us outline the practical application.

The ancient walls were covered first with a mixture of coarse sand, straw and lime several inches thick and the surface was left in quite a rough state. Water was sprinkled over this and a second mixture of lime and a finer sand were applied about half the thickness of the former. The final coat on which the painting was executed consisted of a very fine sand, in some cases marble dust, and was laid on only over a space which could be covered by the artist in one day. It has been assumed that the reason for the very thick coat lay in the warm climates of Italy and Greece, as in so thick a layer more moisture would enter into its make-up thus giving the artist more time to work. Modern frescoes consist of only two layers, the lower a little over half an inch thick and the painting surface a little less than half an inch thick. The colors were simply ground in water and applied. In

Continued on page 22

BELLOWS, PATRON SAINT OF ART STUDENTS

BY A. R. ROBERTS

Marcus Aurelius once said, "Every man is worth just so much as the things are worth about which he busies himself."

In his Nineteenth Street studio George Bellows, National Academician and unquestionably one of the foremost American painters of the age, busies himself daily with the paintings for which he is justly famed. It is just this patient perseverance and unfailing allegiance to his work, which has been almost as much a part of his life as his home and family, that has carried Mr. Bellows to the heights he now occupies in the art world.

Always a well-wisher for the success of THE AMERICAN ART STUDENT since it was founded five years ago, one of his chief delights in life has been to extend the helping hand to those sincerely struggling to get to the top and those students in New York and Chicago who were privileged to serve under his instruction and direction have moments of both profit and pleasure to look back upon, and a foundation upon which much of their success will undoubtedly be builded.

Mr. Bellows is extremely antagonistic, quiet and phlegmatic as his disposition may seem to some, to the old system of art school teaching whereby a few cast-iron rules were laid down and much of the genius in the classrooms crushed out by forced attempts to follow laws of composition, triangulation, imitation of the instructor's work; rather than the searching out after new information, adding to one's store of knowledge, and hunting for even greater depths and heights in the truths and doctrines of art as already discovered and laid down by the Greek

and European masters. In an article in *The American Architect* he says that painting need not consciously conform to law.

"Most so-called laws of the arts are dogmas. Rules and regulations," he fervently declared, "are made by sapheads for the use of other sapheads! Laws may be considered judicially. Certain laws are absolute, but many others are arbitrary. The absolute laws one is naturally in harmony with and will often subconsciously adhere to in spontaneous work even better than in deliberate effort, where there is not a profound basic knowledge. The arbitrary laws do not matter. They are human, fallible and disputable points of view. The academies and art schools are full of them."

We suggested the Hambidge theory of Dynamic Symmetry. But along with the mass of pertinent information already stored in his mind was a full knowledge of and lively interest in Mr. Hambidge's researches. "Some of the new things I have tried," said Mr. Bellows, "have naturally taught me nothing,

but from some of them I have acquired knowledge that has been priceless."

At this point Mr. Bellows took from a large case a number of sketches and in the most convincing manner showed just how he had in every instance applied his knowledge of the Hambidge research. "Look," said he, "how it simplifies this certain difficulty of arrangement, how it releases me from a heretofore distracting factor, and thereby permits me to concentrate all my efforts on the infinitely more difficult aspects."

It is this way that Mr. Bellows emphasizes the openness of mind with which he attacks every problem of his art. The fact that a thing is old and has stood the test of long practice will not interest this explorer into the unknown realms of art, as much as will some new idea to which



he may bring all the resources of a fertile and well-balanced mind. If there ever was an iconoclast in art it is George Bellows, but he does not destroy from the wanton motive of a doubter. When he departs from convention he can supply a reason for such departure that is so sane, so logical, that argument is silenced. When an artist will have attained, through an equally well-balanced mind, the same dauntless courage and independence, we shall hail him as the Moses who shall lead out of the Egypt of adaptation and precedent the whole of his profession.

One has but to study the two portrait cuts which accompany this article (courtesy of *The American Architect*), to realize just what patient research work and individualistic effort will do. The work is as far different from the academic "wooden Indians" as Kipling's proverbial "East is east, and west is west, and never the twain shall meet."

The writer has been particularly fortunate, by actual contact, in observing the immense strides and changes which have taken place in our present-day educational system,—advancements which are but stepping stones to ones even greater in the future. Our public libraries and schools all bear witness to this. But changes in methods of teaching in the art schools have been slower coming, and it was not until the outbreak of the European War that any great differences were noticed anywhere.

I have before me fifteen catalogs of leading art schools throughout the United States; some of them bear an almost-tearful witness to the fact that the rather-narrowed, old-style methods of teaching have not only kept back the normal progress that should have been made in the general quality of that particular school's work, but have actually retarded and set it back. Five years from now, we hope, most of those

illustrations with their flagrantly harsh and painfully lined out technique, will have passed off stage.

Much of these changes must come from the student's own desire to acquire new thoughts and ideas, and his willingness to search, study and work along new lines. "Forget the routine thing, forget the college degree," says Mr. Bellows; "the man of vitality is naturally self educated. Education is largely personal."

Some of my readers will remember the healthy mental stimulus along those lines of original thinking given by Conan Doyle's fiction character, Professor Challenger, in "The Lost World".

A course in the finest art schools of America and France means nothing to the copyist or those devoid of "mental spines". One of the most capable newspapermen I know did not graduate from high school. If you want to be a cartoonist, a sculptor, a designer, an illustrator, or a commercial artist and love the work enough, you *can* do it if you'll try to

be yourself and not some one else. And the best way to get a thing done quickly is to do it quickly.



IF YOUR DRAWING IS NOT RETURNED

THE AMERICAN ART STUDENT receives a large number of drawings which are offered for publication or criticism. After the wrappers in which they are mailed are discarded, there is no means of telling the ownership of the drawings unless they bear the name and address of the sender on the back. We cannot be responsible for the return of any drawings which are not thus identified.

ILLUSTRATING THE ROTOGRAVURE PROCESS AS DESCRIBED ON THE FOLLOWING PAGES

PROCESSES OF REPRODUCTION

The reader may have surmised that we consider the subject of photo-engraving processes a very important one, from having seen articles on reproduction in nearly every issue of *THE AMERICAN ART STUDENT*. We cannot impress you too strongly with the fact that the artist should make himself familiar with the chief processes that are used in making engravings from drawings, and that he should keep abreast with the new processes that are developed from time to time.

There is the subject of rotogravure, for example, which many advertisers are making use of. What do you know about it? What are the requirements of crayon or charcoal drawings that are to be engraved in line? How are silver prints made? Is there more than one process for making highlight halftones? What are the "offset" or "prismatone" processes? Are wood engravings still used by advertisers?

"There is so much to learn about reproduction," you will say, "it is a wonder nobody wrote a book about it." The first book written that completely covers the various processes of reproduction has been compiled by the Linnings, commercial artists of 112 West 40th Street, New York. The volume has just come off the press, and it is titled "What the Artist and Advertiser Should Know About Reproduction." There is a great deal of information in this book which we would like to reprint for the benefit of the reader, but our limitations are apparent.

Rotogravure is going to be the big thing in advertising, and advertising men are studying its many possibilities. We believe that artists should have a general knowledge of this process, and for this reason we reprint the following information about Rotogravure from the book on reproduction mentioned above, with the permission of its authors:

"PHOTOGRAPHING THE ORIGINAL SUBJECT"

The first stage of the process is the making of the photographic negative from the original drawing or photograph (Fig. 1). This negative is made as clear as possible, because upon its success depends the quality of the positive made from it, and the success of the subsequent operations. Great care is taken in retouching the negative as well as the positive (Fig. 2). This consists not only in adding shades to the negative by working over the varnished or ground film

with soft lead pencils, but in removing shades by scraping with a sharp knife on the positive.

One of the interesting developments of this rotogravure studio is a giant camera probably one of the largest in the world. Upon seeing this camera you would not recognize it as such, unless its mysteries were explained. It is unlike the usual type of camera with which we are all familiar. There are no bellows at all, but, instead, a large room is substituted, which has been finished in a dead black paint. A huge plate and film holder slides along on a bed or table in the room so as to be readily focused. A hole about a foot square has been cut in the front wall of the room, and in this the lens is fitted. The panel covering this hole may be quickly released and different lenses inserted to suit the work in hand. Outside the room and directly in front of the lens there is a second bed or rack on which the copy carrier slides. This carrier consists of a large vertical frame or panel on which the art work (photograph, painting, etc.) can be secured. The giant camera is, of course, used only for large layouts and art work of unusual size. The focal capacity of this camera is eight feet, and the largest plate or film which can be accommodated is sixty inches by thirty-five inches. For photographing the usual size of photos and other illustrations, the standard photoengravers' type of copying camera is employed.

"MAKING UP THE FORM"

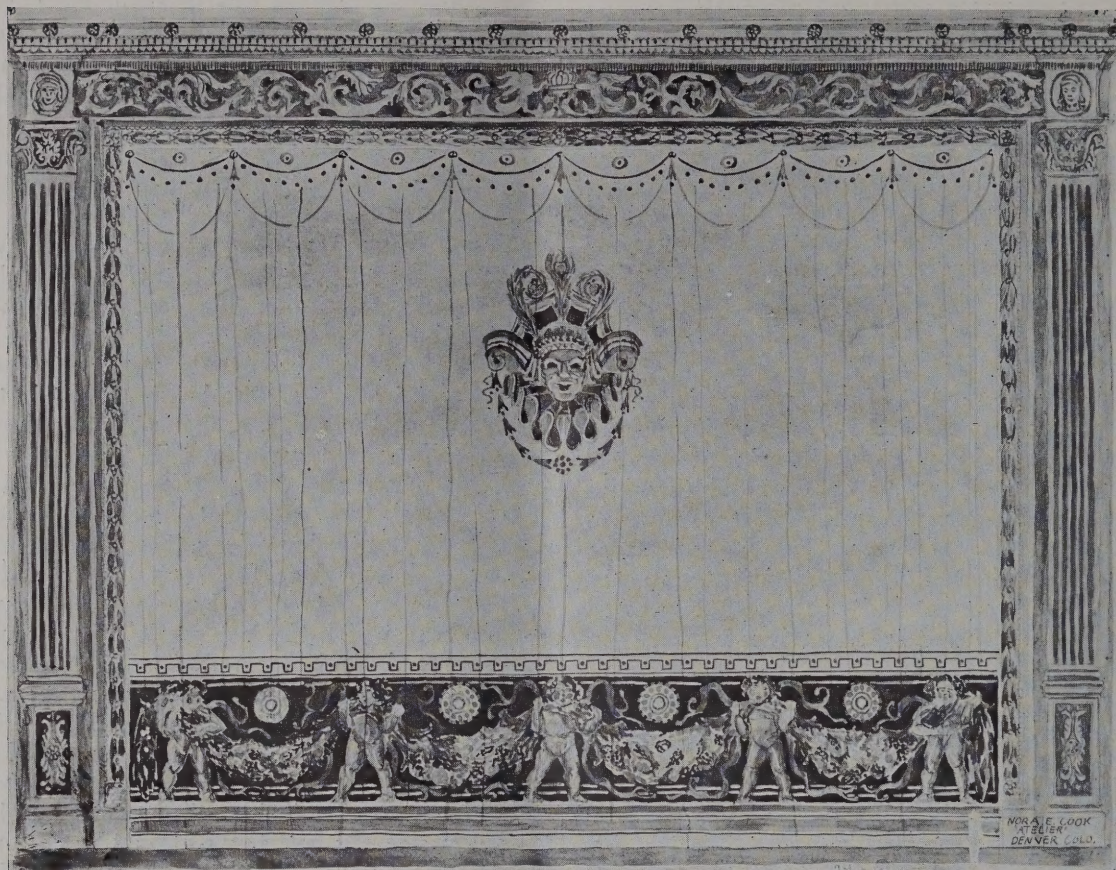
By pasting the retouched positives on a large piece of plate glass, we enter the second stage of the process which is called "making up the form". A large piece of plate glass is placed on top of a ruled layout and each positive placed in its marked place on this glass.

The form is then ready to be taken into the carbon printing room, where it is placed in a vacuum printing frame.

In the meantime the carbon tissue paper, which comes in rolls 3x12 feet and which consists of a strong paper evenly coated with gelatin containing a brown pigment, is sensitized in bichromate of potash, squeezed on a ferrotype plate and dried for not over two hours.

"PRINTING THE PICTURES ON CARBON TISSUE"

When ready to be used, the carbon tissue is cut into the proper size and placed on top of the form in the vacuum printing frame. The vacuum printing frame is similar to that used



A THEATRE CURTAIN, Second Medal

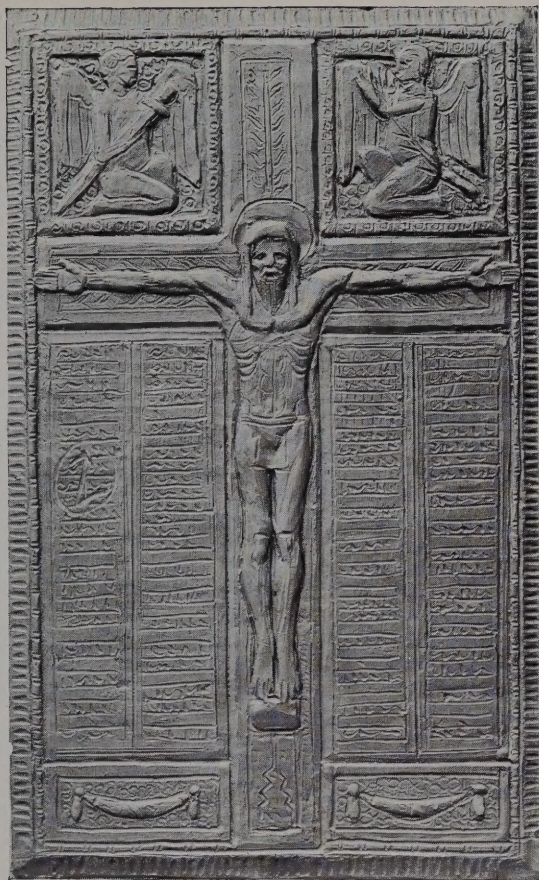
NORA E. COOK, Atelier, Denver

by amateur photographers in printing their kodak pictures, only it is much larger. The small-sized frame gives the necessary contact by a steel spring while the life-sized frames have a more elaborate mechanism. To be certain that all pictures which are placed in a large frame have good contact, a vacuum pump is connected by a flexible hose to a rubber blanket. An air pump then sucks the air from between the form and the blanket. In this way good contact is guaranteed between the picture form and carbon paper. Powerful arc lights are turned on and given a certain length of time exposure, which operation is also called printing (Fig. 3). The carbon tissue with the printed pictures on it is now put in another vacuum printing frame and placed on top of an engraved glass screen of from 150 to 175 lines to the inch and a second exposure is given. The tissue, which is really a paper, resembling "Solio" photo print stock, is now ready to be transferred to the copper cylinder.

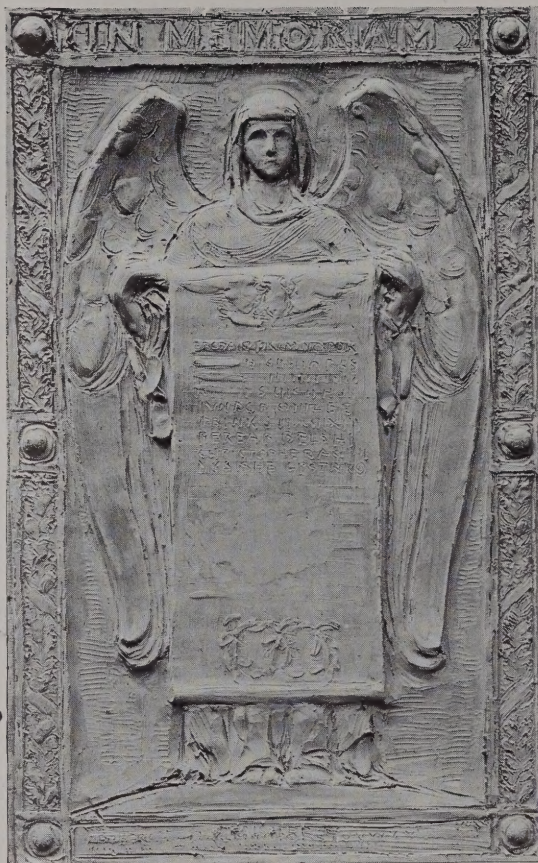
The cylinders can be solid copper rolls, or better, hollow copper cylinders, slightly tapered on the inside so that they can be forced on a mandrel. Some are steel tubes on which a shell of copper has been deposited by electroplating (Fig. 4). These rolls are polished and turned absolutely true in a lathe before they reach the carbon transfer room. (See Fig. 5.)

"TRANSFERRING PICTURE TO COPPER CYLINDER"

To transfer the printed carbon tissue to the copper cylinder, it is soaked in a solution of alcohol and water. When the tissue begins to flatten, it is quickly lifted out of the solution, adjusted to the position indicated by pencil marks which have been drawn on the cylinders, and squeezed securely to it. All the water possible is pressed out and all surplus moisture is wiped from the back with a soft cloth. The roll is allowed to set for at least twenty minutes while the trough is cleaned and prepared with hot water. When ready the cylinder is steadily turned over in the



MEMORIAL TABLET Second Medal
F. P. DeLUNA



MEMORIAL TABLET, Second Medal
FRED B. CLARKE

developing trough until the paper backing is loosened and finally stripped off. The soluble gelatin can now be washed away until the image shows proper development. The image will be found on the cylinder in gelatin relief, corresponding to the lights and shades of the positive,

Continued on page 25

BEAUX ARTS INSTITUTE OF DESIGN

Circulars of Information and Programs for the Exercises in composition in any of the following departments will be mailed on request by writing to 126 East 75th Street, New York.

DEPARTMENT OF SCULPTURE: Awards made at the judgment of June 27, 1921.

Jurors—Messrs. F. Lynn Jenkins, Charles G. Peters, John Gregory, Edward McCartan, Leo Lentelli, George S. Koyl, Frederic C. Hiron, John Flanagan, Robert G. Eberhard.

Monthly Exercise in Composition No. 10. Subject, "Memorial Tablet." Sixteen models submitted. Second medal, F. De Luna, (2) F. B. Clarke; first mention F. De Luna, (2) P.

G. Vagis; second mention, F. De Luna, L. Worswick.

Life Modeling Classes—Mr. Ulysses A. Ricci's Class—First mention, F. C. Fischer, J. Ruhl; second mention, A. Block, F. Rotenberg. Mr. F. Lynn Jenkins' Class—Second medal, L. Slobotkin; first mention, C. Luini, C. Parducci; second mention, L. P. Prescott.

Architectural Ornament—Mr. Charles G. Peters' Class in Louis XVI Ornament—First mention, V. Mancini, H. Albrizio, C. Geraci, I. Crisafulli; second mention, C. M. Chambellan, S. Santore, S. D'Angelo.

Nature Study (drawing)—First mention, A. Frati; (2) second mention, A. Frati, S. Santore.

DEPARTMENT OF MURAL PAINTING: Awards made at the judgment of June 27, 1921.

Jurors—Messrs. Allyn Cox, Arthur Crisp, Henry R. Rittenberg, Joseph Lauber.

Monthly Exercise in Composition No. 10. Subject, "A Theatre Curtain." Eight sketches submitted. Second medal, Nora E. Cook, Atelier, Denver.

Directions for Removing Below Coupon

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Place the thumb and forefinger of the left hand lightly against the cusp of the perihelion, and with the right hand seize the coupon firmly at a distance of three glaubs from the median line. Now, with the free hand, insert the other end of a soup-spoon into the slot formed by the differential expansion of the two parts, and twist sharply upward. As soon as the coupon has cooled sufficiently, repeat the operation, taking care to see that the commutator does not spark excessively. Run a canopener lightly over the perforations, and scrape off any adhering crust. Set the coupon aside for an hour. At the end of this time, if all steps have been carried out carefully, in accordance with these directions, the coupon will be free of insoluble silicates, and the fibre stress along the neutral axis will have increased to approximately 30,000 louie-derrs. Test several portions of the coupon with a stethoscope to make sure of this. As soon as the results check to half a per cent, clamp the coupon down at all four corners, and make it as comfortable as possible. When it becomes quiet, watch your opportunity, and wallop its centroid, gently yet persuasively, with a bung-starter. This will free the coupon from the rest of the page.

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One of the illustrations from "Studies of the Human Figure," reproduced here through courtesy of Mr. Marshall Jones.

CONCERNING THOSE WHO STUDY THE HUMAN FIGURE

"Throughout the ages," says a well-known writer, "the human form has been the chief inspiration of the artist, and proficiency in its representation an enviable distinction among his contemporaries. The earliest manifestations of the desire to record things seen were crude attempts to represent figures by outline, or in silhouette, scratched with sharp instruments, on cave interiors, animals' horns and teeth, or rudely carved in any handy material."

Continuing, the author, writing just prior to the time of the Hambidge discovery, says: "If it is a fact that these Greek artists achieved their wonderful figure work without the help of dissected anatomy, the infinite patience and labor involved in observing and memorizing with thorough mastery the multitude of variations in surface form occasioned by the actions of the body, would have been a Herculean task for any man's lifetime.

"Hence it is certain that some code of study must have been in use other than this individual observation; the attachments and play of muscles must have been understood, and certain formulae laid down by experts for their students'

benefit, or the perfect school of sculpture associated with the age, could not have existed.

"One of the most able figure draughtsmen and painters that I know obtained his mastery over anatomy in this way, and working beside him for some time I was greatly interested in his method and progress. He did not attend the school lectures on anatomy, and I am sure that he derived exactly the same amount of useful information from them as those of us who did. Instead, he struck out a line for himself in studying Thompson's 'Anatomy' in conjunction with the anatomical casts possessed by the school, making innumerable quick sketches, and fitting the names he wished to know by reference to Thompson, the while paying very special attention to the attachments of the muscles, a knowledge of which is invaluable in studying their direction and movements in the actual model.

"When familiar with the whole frame and superstructure of muscles as shown in these casts, he carried out the same search from the living model, making sketches on the same position as his former studies from the casts, and jotting down his impressions of any difference or similarity to his conclusions. At this stage he made many anatomical sketches from photographs, being most enthusiastic in his search for photographic subjects to anatomize.

"In drawing from life in class from posed models by the masters, he insisted on making only pencil and chalk studies, taking from two minutes to two hours according to his mood. Working at first with the anatomy book until he attained complete knowledge of the form and action of all surface muscles, most of his early sketches were diagrammatic, and done, as all sketches should be, with the sole idea of getting information. They were generally written all over with notes, and it would be easy to trace from his sketches at this period the way to complete mastery over the mechanical or constructional side of life drawing. As he became perfectly sure of the underlying reason for everything, beautiful drawing gradually emerged from the chaos of notes and diagrams, and his work, though always slight, and apparently executed with absolute ease, was that of a master, inimitable and satisfying in its slightest manifestation.

"One's efforts should be concentrated from the first on understanding the pictorial aspect of the figure in a large way, and it is much easier to detect faults when working on a large scale.

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Life-size is not too large, but some pluck and determination are needed to work on this scale in an ordinary art school. I remember two students, now well known in the practical art world who insisted in working constantly in oils in canvas, full-life, or heroic size; both now work on quite a small scale, but their work is



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splendidly broad, free, and certain in construction as a result of the splendid practice their doubly heroic work afforded.

"The chief objection to students working on a small scale is that drawing is too easily slurred, and the danger of clever tricks intensified. Many brilliant young producers of effective sketches from life have mistaken the means for the end, and lost themselves in admiration of their achievement. One of the pitfalls of the beginner in drawing the figure is the attempt at finish of parts before understanding pose and construction, an error in procedure that was encouraged by the reverence in official teachers for labored study from the antique as a preliminary to life-drawing."

Those of our readers who will diligently follow this series will undoubtedly amass a wealth of information, but the application and observation is up to the individual. The technical side,

Page Twenty-two

and details of construction of the human form, male and female, will be taken up in successive articles.

In this, the second of a series of articles running monthly in *THE AMERICAN ART STUDENT*, credit must be given to the Marshall Jones Company of 212 Summer Street, Boston, for permission to reproduce material from the book, "Studies of the Human Figure," edited by F. R. Yearbury and G. M. Ellwood of England, of which they are sole American agents. The book retails for \$7.50 and sample pages may be had of the dealer for fifteen cents. The photograph which accompanies this article has been reduced from one of the many plates in the book.

A. R. R.

MATERIALS THE ARTIST USES

Continued from page 13

the evening wet cloths were hung over the painted and unpainted part. The next day another section was added and so on.

The drawing was transferred to the wet plaster either by pressing the design through or pouncing. This latter consisted of perforating the cartoon along all the lines and then with a large mesh cloth in the shape of a bag containing charcoal dust pouncing over the design. This drove the charcoal through the perforations and transferred the design to the wall. One can see the manual labor and dexterity necessary for a technique of this sort but there are other things which occupy the artist's attention of equal importance.

The lime mixture must be caustic to attain the greatest binding power. This means that the pigments must be selected very carefully as not every pigment will withstand the caustic action of the lime. Hence we must use only lime-colors or lime-fast colors. Colors which cannot be used for buon fresco are: lead whites, all the yellow and green chrome colors, zinc yellow and its mixture with Prussian blue called zinc green, as also the Prussian blue itself, all the copper colors resulting from the action of acetic acid or arsenic such as copper carbonate, Paris or emerald green and so on. These with vermilion and cadmium constitute the mineral colors while others of vegetable origin especially lakes or those of a peaty nature, as follows: (lakes)—carmine, root madder, Indian yellow, gamboge or (those of peaty content)—sepia, Van Dyke brown, Cassel earth cannot be used.

On the other hand the lime-fast colors of min-

eral origin are chalk, clay, the yellow and red ochres, the umbers, terre verte; while the artificially produced ones would be zinc white, iron oxides, cobalt blue, cobalt violet and green, oxide of chromium and carbon blacks. Under certain conditions ultramarine may be used.

Some of the aniline colors now produced are lime-fast and are used in considerable quantity for making commercial interior wall paints with fair success.

The permanence of a fresco depends on the care with which the materials are selected. The lime must be soaked some time in a tub and strained before use. It should be slightly thinner in consistency than putty. The marble dust must be sifted. The wall to which the intonaco or painting surface is applied must be rough and well wetted.

It is advisable to let some water stand on lime a few days and when poured off to use this for tempering the colors. It insures greater binding strength.

Another important matter is that the wall on which a fresco is painted be thoroughly dry as dampness from behind or the possibility of water being soaked up by the wall would spell disaster.

The colors applied to the wall dry out considerably lighter. To assist one in painting and judging the result with some measure of accuracy an unglazed porous tile or building brick can be used for trying the colors on. The absorption of these lays the color dry in a few moments in approximately the finished tone.

A fresco painting when finished is often retouched by means of the secco method, colors ground in some binder like glue, egg or casein being used. The disadvantage in doing this, however, lies in the fact that any dampness in the wall or condensing on its surface causes fungus growths nourished by the binder. These growths spread like wildfire and ruin the picture.

As noted in the beginning wax was used as a varnish in early times while later when resinous varnishes became known these were used in a protective way.

In spite of the many difficulties both manual and artistic, this technique is used by many artists today for mural decoration. If precautions are taken in the selection of material and surface, it forms a very permanent medium excelled only by a later development known as mineral painting in which silicates form the binding agent. This will be discussed in the near future.

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KERAMIC DEPARTMENT

Continued from page 12

than expected, the reason for which is not always easily ascertained.

QUESTIONS AND ANSWERS

Q. I wish to do some miniature painting and, knowing that some shades are better for this purpose than others, would appreciate it if you would give me a list of the colors.

A. In obtaining a shade of color various processes may be employed and not always the same mineral is used in manufacture. Therefore, a shade of one manufacture may be satisfactory for your purpose, whereas that of another would not answer. We are writing you personally sending a list of colors which you will note specifies those colors which you desire and which contains considerable information. It designates those shades which are especially good for miniature painting, grounding, figure painting, photography on china, etc.

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PROCESSES OF REPRODUCTION

Continued from page 19

through which the light entered. Where the positive was densest the light penetrated least and the film of gelatin is consequently thinnest. Where the positive was most transparent, the light acted to the greatest extent and the carbon film is thickest. The tissue is then treated with alcohol and water, gradually increasing the alcohol until pure alcohol is used to drive out all the water possible from the film in order to accelerate and ensure its drying.

It is now ready to have the margins covered with asphalt varnish to prevent the acid from etching them, and when perfectly dry the cylinder is ready for etching (Fig. 6).

Perchloride of iron of different strengths is the mordant used. The iron solution penetrates the thinnest parts of the gelatin resist first, and therefore etches the cylinder most under these parts. Where the gelatin resist is thickest, corresponding with the high lights of the positive, the mordant has the least effect on the copper and the etching is slightest. The important point to observe is that the screen lines are not etched away, for on the preservation of these lines as partitions between ink cavities and as bearers for the metal wiper, commonly called "doctor", the whole success of rotogravure printing depends.

After cleaning the asphalt protection from the roller with kerosene and removing the gelatin resist with a solution of acetic acid and water, the cylinder is ready for the press.

The press (Fig. 7), which receives these copper cylinders, is constructed in the usual method to allow the cylinder to revolve in a fountain filled with specially prepared ink. Since the design is etched below the surface this ink fills the design. By scraping all superfluous ink off the outside of the copper cylinder with the aforementioned "doctor" blade, the surface of the cylinder is kept perfectly clean, and with the assistance of the rubber-covered roller or impression cylinder, the design from the copper cylinder is transferred to the web of paper when it passes between the rubber impression roller and the copper cylinder. As the inks are used in a very liquid state, it has been necessary to introduce drying apparatus to dry the webs between printing on one side and the other, and also after printing on both sides, before passing to the further operation of folding and delivering the printed product in sheets.

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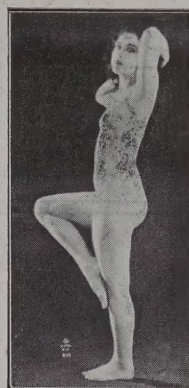
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Increase in Price Effective with September Issue

IN order to make it possible to increase the number of pages of THE AMERICAN ART STUDENT, and to add certain new features which are contemplated, it will be necessary to fix the price of this magazine at

25 Cents per Copy

instead of 20 cents. The increased postal rates of mailing second class matter are also a factor which makes this increase necessary.

The subscription price of \$2.00 per year, and \$3.00 to Canada and foreign countries will remain the same at present.

Our 5th Anniversary Number will be issued in September. Dealers are urged to send in their order for copies early, and art schools and other advertisers are warned that forms for this special number close on the 10th of August.

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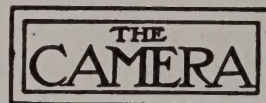
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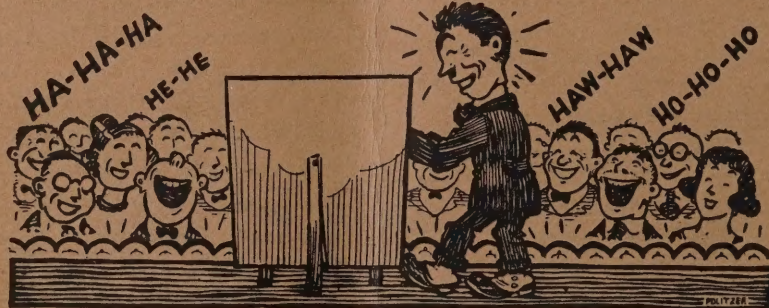
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